IN THE SPECIFICATION

Please replace the paragraph beginning on page 6, line 25, and ending on page 7, line 3, with the following amended paragraph:

Figure 1 illustrates a system 50 that can be used in conjunction ~~with the~~ with the present invention. System 50 comprises a host computer system 56 which can either be a desktop unit as shown, or, alternatively, can be a laptop system 58. Optionally, one or more host computer systems can be used within system 50. Host computer systems 58 and 56 are shown connected to a communication bus 54, which in one embodiment can be a serial communication bus, but could be of any of a number of well known designs, e.g., a parallel bus, Ethernet Local Area Network (LAN), etc. Optionally, bus 54 can provide communication with the Internet 52 using a number of well known protocols.

Please replace the paragraph beginning on page 9, line 6, with the following amended paragraph:

Figure 5 illustrates circuitry of computer system 100 in accordance with an embodiment of the present invention, some of which can be implemented on PC board 225. Computer system 100 includes an address/data ~~bus 100~~ bus 110 for communicating information, a central processor 101 coupled with the bus 110 for processing information and instructions, a volatile memory ~~102 (~~ 102, e.g., random access memory (RAM), coupled with the ~~bus 100~~ bus 110 for storing information and instructions for the central processor 101 and a non-volatile memory ~~103 (~~ 103, e.g.,

read only memory (ROM), coupled with the ~~bus 100~~ bus 110 for storing static information and instructions for the processor 101. Computer ~~system 110~~ system 100 also includes an optional data storage device 104 (e.g., memory stick, SD memory, etc.) coupled with the ~~bus 100~~ bus 110 for storing information and instructions. Device 104 can be removable. As described above, system 100 also contains a display device 105 coupled to the ~~bus 100~~ bus 110 for displaying information to the computer user. PC board 225 can contain the processor 101, the ~~bus 100~~ bus 110, the ROM 103 and the RAM 102.

Please replace the paragraph beginning on page 9, line 20, and ending on page 10, line 3, with the following amended paragraph:

Also included in computer ~~system 110~~ system 100 of Figure 5 is an optional alphanumeric input device 106 which in one implementation is a handwriting recognition pad ("digitizer") having regions 106a and 106b (Figure 2A), for instance. Device 106 can communicate information and command selections to the central processor 101. ~~System 110~~ System 100 also includes an optional cursor control or directing device 107 coupled to the bus 110 for communicating user input information and command selections to the central processor 101. In one implementation, device 107 is a touch screen device incorporated with screen 105. Device 107 is capable of registering a position on the screen 105 where the stylus makes contact. The display device 105 utilized with the computer ~~system 110~~ system 100 may be a liquid crystal device, cathode ray tube (CRT), field emission device (FED, also called flat panel CRT) or other display device suitable for creating graphic images and alphanumeric

characters recognizable to the user. In the preferred embodiment, display 105 is a flat panel display.

Please replace the paragraph beginning on page 10, line 5, with the following amended paragraph:

Signal communication device 108, also coupled to ~~bus 100~~ bus 110, can be a serial communication port, USB (Universal Serial Bus), SCSI (Small Computer System Interface), Ethernet or any other suitable communication interface for communicating with the cradle 60 and other external devices. Device 108 can also include an infrared communication port.

Please replace the paragraph beginning on page 10, line 11, with the following amended paragraph:

Referring now to Figure 6, a so-called SD (~~Secured~~ Secure Digital) memory module 600 used with the palmtop computer system 100 in accordance with an embodiment of the present invention is illustrated. SD cards are an industry standard memory expansion device utilizing flash memory in a package approximately the size of a U.S. postal stamp. Information regarding the SD memory standard can be obtained from www.sdcard.org. SD card 600 includes a plurality of nine electrical connectors situated at one end and labeled 604. The SD memory module standard calls for nine such electrical connectors that carry two ground connections, one power connection, one clock connection, one command connection and four data connections. While currently palmtop computers are available with standard memory

in the range of approximately 2 to 16 MB, SD memory expansion cards (and similar expansion products such as the trademarked Memory Stick and SmartMedia memory modules) can provide dramatically more memory in a very compact package. Currently, up to approximately 256 MB of expansion memory is contemplated in the near future for such modules, with even greater capacity likely.

Please replace the paragraph beginning on page 11, line 19, and ending on page 12, line 8, with the following amended paragraph:

Referring now to Figure 8, another popular mechanism for expanding the functionality of a palmtop computer is illustrated as sled type expansion device 800. Such a sled-type expansion device is illustrated in greater detail in U.S. design patent application serial no. 29/114,772, filed Nov. 30, 1999, attorney docket number 15886-371 entitled "Communication Accessory Device for Handheld Computer", to Francavilla, ~~urban~~ Urban and Stowers, which is hereby incorporated by reference. Sled device 800 may embody any of a number of electronic devices utilized to enhance the functionality of the palmtop computer 100. By way of example, and not limitation, sled device 800 may incorporate an internal modem, music player (e.g. an MP3 player) or video game device. Sled device 800 may also include latching mechanisms and the like (not shown) to mechanically secure the sled 800 to the palmtop computer 100. Sled type expansion device 800 incorporates a connector 812, which may be any suitable electrical connector that appropriately mates with a similar connector 108 (Figure 2B) of the palmtop computer 100. Conventionally, connector 812 incorporates a serial communication interface such as an RS232

compliant interface. Other types of interfaces such as Universal Serial Bus (USB), Ethernet, etc. may be similarly utilized to permit communication from the outside world to the processor 101 and associated circuitry of the palmtop computer 100. In addition, power and ground terminals are sometimes provided in connector 812 to either supply power to the palmtop computer 100 to charge its internal batteries or to receive power from the palmtop computer 100 to power the sled device 800.

Please replace the paragraph beginning on page 12, line 10, with the following amended paragraph:

By interconnecting the sled device 800 with the palmtop computer 100 electrically, the sled device 800 can utilize the processor, memory, display and input capabilities of the palmtop computer 100. However, depending upon the application and type of device embodied in the sled, the functionality may be restricted by the speed of the communication mechanism used for communication between the sled 800 and the palmtop computer 100 or by the processing speed of the palmtop computer's processor 101 or battery capacity of the palmtop computer 100. Since it is desirable to maintain long battery life in the palmtop computer 100, memory access by serial communication through connector 812 imposes severe limitations upon the capabilities of the sled 800 in combination with the palmtop computer 100.

Please replace the paragraph beginning on page 12, line 21, and ending on page 13, line 4, with the following amended paragraph:

Consider, for example, if sled 800 implements an MP3 player for playing digitally stored music. In order for the MP3 player within sled 800 to access music stored in the expansion memory module 600, processor 101 must retrieve the data representing the music from the data storage device 104 (in the preferred embodiment SD memory module 600), convert the data to serial data for communication via the connector 108 and pass the data on to the sled device 800. In order to accomplish this in real time so that the user does not have to wait for a download from the memory module 600 to listen to a selection of music, processor 101 operates at an extremely high capacity robbing power from other applications and exhausting battery life. Alternatives to this problem might include providing a memory module connector on sled 800. However, this solution increases the cost of the sled device 800 by requiring a memory module connector when one is already readily available within palmtop computer 100. In accordance with the present invention, the sled 800 is provided with direct access to memory module 600 (data storage device 104), bypassing the need for intervention by processor 101.

Please replace the paragraph beginning on page 13, line 6, with the following amended paragraph:

Referring now to Figure 9, the electrical block diagram 100 of Figure 5 is expanded in part to illustrate the detailed connection of the processor 101 within an expansion device such as a sled 800. Processor 101 is coupled to bus 110 as

described previously. One function of signal input/output communication device 108 is illustrated as a communication interface 902. In this example, a serial interface is shown, however, a ~~universal serial bus~~ Universal Serial Bus or other serial or parallel communication interfaces are also possible. Communication interface 902 is coupled to connector 108 on the palmtop computer 100 to facilitate communication with devices outside the palmtop computer 100 such as sled 800 or cradle 60. In addition, bus 110 is connected to a data storage device interface 904 that converts data to and from data storage device 104 (for example, SD module 600) so that processor 101 and other devices connected to bus 110 can access data stored in the data storage device 104. Data storage device 104 is connected to the data storage device interface 904 via a data storage device connector 908 that provides electrical connections which mate with terminals 604 in the case of SD connector 600. Data storage device connector 908, in the case of SD memory expansion module 600 provides a data path for the four data lines of SD module 600 as well as the clock and command lines. Power and ground connections are also supplied on data storage device connector 908. At least the data lines, command line and clock line are provided on bus 912 which is connected to the expansion device connector 108. In this manner, an external expansion device such as sled 800 is provided with direct access to the data storage device 104 via the expansion device connector 108.

Please replace the paragraph beginning on page 13, line 29, and ending on page 14, line 11, with the following amended paragraph:

In some embodiments, terminals may be provided at expansion device connector 108 to provide for charging and power circuitry 924 to either power the palmtop computer device or the expansion device or charge batteries at one or the other devices. The expansion device connector 108 may be termed the palmtop computer side connector since it is connected physically to the palmtop computer 100 whether or not the palmtop computer 100 resides in a cradle, sled or neither of the above. A mating connector 812 (an expansion device-side connector) mates with the expansion device connector 108 to electrically provide access to the communication interface 902 and data storage device 104 by the expansion device 800. Appropriate electrical connections are provided to an expansion device-side communication ~~device~~ interface 950, memory interface 960 and possibly power interface 970. In this manner, expansion device 800 can communicate with processor 101 or other circuitry of the palmtop computer 100 via the communication interface 902 and can directly access data stored in data storage device 104 via the expansion device connector 108. The expansion device-side communication interface includes at least one of a Universal Serial Bus (USB) interface, an Ethernet interface, a Serial interface and a Small Computer System Interface (SCSI).

Please replace the paragraph beginning on page 14, line 18, with the following amended paragraph:

Minimal arbitration is required between the sled 800 and the palmtop computer 100 to use the same memory (e.g., SD memory module 600). The only arbitration required is that only one device can access the memory at any given time. Thus, the palmtop computer 100 is essentially off or quiescent with respect to the memory module 600 whenever the sled 800 is accessing the memory module 600. By way of example and not limitation, a simple handshake or semaphore exchange via serial communication channel between the sled 800 and the host palmtop computer 100 meets these requirements.

Please replace the paragraph beginning on page 14, line 27, and ending on page 15, line 9, with the following amended paragraph:

In the case of the MP3 player as described earlier, with the arrangement shown in Figure 9, processor 101 is not required for interaction between the expansion device 800 and the data storage device 104 such as SD memory module 600. In such a player, the communication interface 902 can be utilized by the expansion device 800 to communicate with processor 101 to implement, for example, volume control, play list, music selection, graphics, tone and balance controls, etc. using the palmtop computer 100's I/O capabilities. The data representing MP3 music stored on data storage device 104 can be directly accessed by the expansion device 800 without depleting the palmtop computer 100's battery rapidly by requiring intervention of processor 101 and with great speed since the limitation of the speed of the

communication interface 902 is not a factor. In addition, this provides a mechanism whereby the expansion device 800 can utilize an existing hardware expansion port 604 to supply content or data to the expansion device 800 without requiring that the expansion device 800 duplicates such hardware and thereby increase its cost.

Please replace the paragraph beginning on page 15, line 11, with the following amended paragraph:

Those skilled in the art will appreciate that the embodiments described above can be implemented using other forms of storage than SD. Disc storage as well as other forms of storage including Read Only Memory (ROM) devices, Random Access Memory (RAM) ~~devices;~~ devices, optical storage elements, magnetic storage elements, magneto-optical storage elements, flash memory, core memory and/or other memory modules such as SmartMedia cards, Memory Sticks and other equivalent storage technologies without departing from the present invention. Such alternative storage devices should be considered equivalents.